GREENWICH INSTRUMENTS LTD

GWDMX

User Manual

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The GWDMX is a DMX-512 compatible lighting controller, designed for use by bands, DJ's, displays and remote applications. The GWDMX has ten programmable buttons, each button can hold a scene or a sequence of scenes, making it a really simple controller to configure and use. It's small size and low power requirements means it can run from a battery pack when a mains socket is not available.

Computer Installation and Setup

The GWDMX installs as a simple Human Interface Device (HID) and requires no drivers. The device should be detected and installed automatically by your operating system.

To configure the GWDMX buttons you will need to install the software, this can be found on the product CD or downloaded from our website http://greenwichinst.com/GWDMX.

The configuration software allows you to create a scene or sequence you can assign to each button. A sequence consists of multiple scenes, triggered by the button or at timed intervals. You can also configure the fade-time for each scene in the sequence.

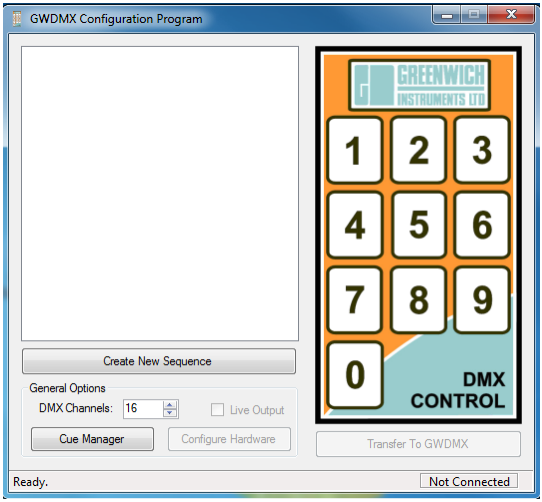
Operation

When connected to the PC, the blue status light should fade gently up and down, this indicates a communication link. When connected to a 5V power supply (with no USB data signals), the blue status light will remain static.

The GWDMX also has an Orange LED that can be configured to show the status of either; the DMX output, button press or audio trigger.

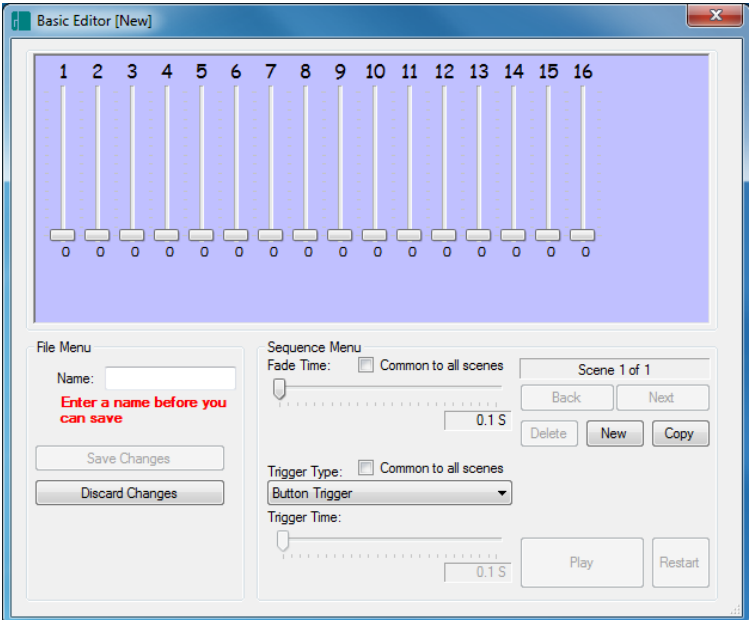
When the buttons have been programmed with the desired scene or sequence, press the relevant button to start that scene or sequence. If a sequence is set to change on button push, the next scene in the sequence will be set on the next consecutive button press.

Software

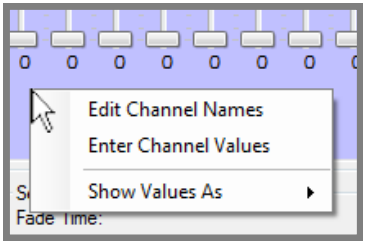


The main screen in the software has an image of the keypad on the GWDMX to the right and a list of sequences (empty on first use) to the left.

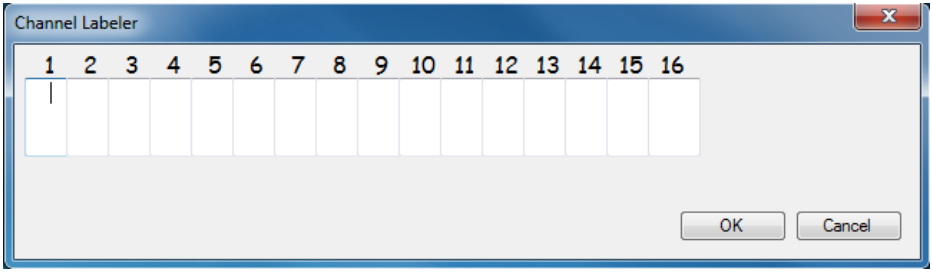
The first thing you need to do is set the number of DMX channels you want to control, this can be any value from 16 to 192 (16 being the default). Then you are ready to create some new sequences. *(Create New Sequence)*



The new screen “Basic Editor” is a basic DMX control board. Each channel slider is numbered across the top and the current value (0 - 255) is displayed below. To make things easier when setting up and editing sequences, the sliders can be given custom labels. To edit/enter your labels, either double left-click under one of the slider values or right-click for the context menu and select Edit Channel names.

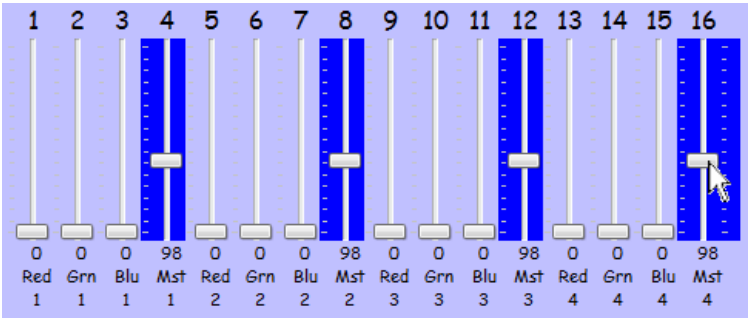


Also, from this context menu, you can enter the channel values directly by entering the numeric value. And, you can select to display the value as percentage (0-100) or as an actual numeric representation (0-255).

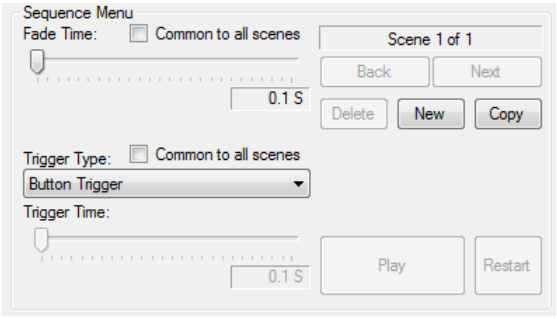


Enter a brief description into each box for the channels you are using and press OK to save. Then, each time you open the editor, your channels will have these labels to remind you what each one does.

Adjust the levels to the output you require. You can select multiple faders by holding shift or ctrl keys. If you hold shift and select a fader, it will turn blue, then you can select another fader (still holding shift) and it will group select from the first selection to the second. Or, you can hold Ctrl and select individual faders.



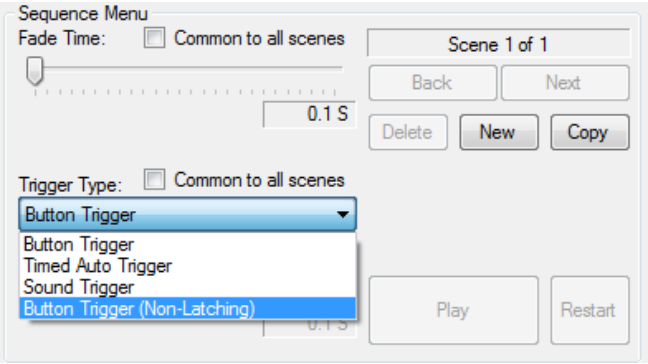
If you want to create a sequence with more than one scene, click the “New” or “Copy” button, you can copy any scene and it will be added to the end. You can step through and edit scenes by pressing the “Next” and “Back” buttons. By default a sequence will advance to the next scene on sequential button presses, you can change this to an automatic timed delay by selecting “Timed Auto Trigger” from the trigger source and setting the “Trigger Time” fader. The trigger time is the total time that scene is active for, at the end of that time it will advance to the next scene or loop back to scene 1 if it is the last.



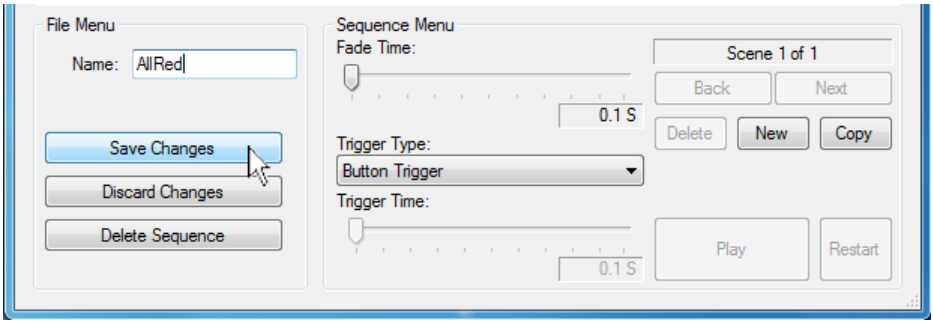
The “Fade Time” is the time taken to change from one scene to another, this can be different for each scene in the sequence.

To make the fade or trigger the same for each scene in the sequence, tick the “Common to all scenes” box and set the required value.

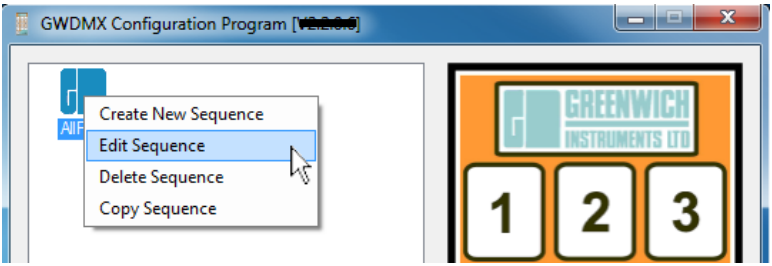
If the sequence has only one scene, another option is available in the Trigger Type drop down. This is a non-latching button trigger. So, when the button is pressed the scene will be played and when released the GWDMX will return to where it was before the button press. Great for strobes and smoke machines.



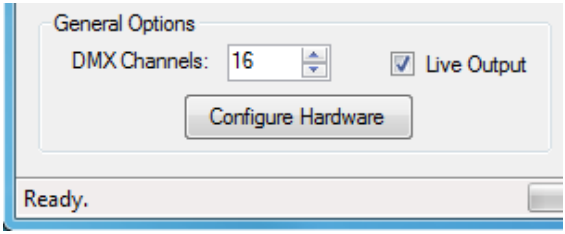
Enter a short and simple name for the sequence and click “Save Changes”. You will be taken back to the main window and the new sequence will appear in the list on the left.



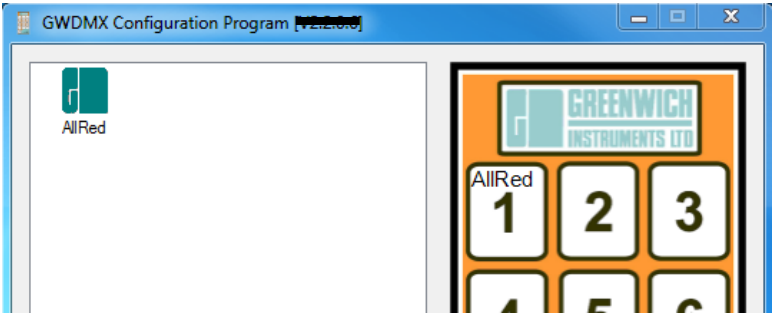
If you need to edit a sequence, simply double left-click it in the list on the left and the editor window will appear. Or, you can right-click a sequence to Create, Edit, Delete or Copy.



To help visualise the effect, you can enable “Live output” of the DMX while editing. With the GWDMX connected, check the box “Live output”, then when you create or edit a sequence the actual DMX values will be outputted via the GWDMX. You can even use the play feature in the editor to run through the sequence before saving and transferring to the GWDMX.



When you have all the sequences you require, simply drag them (one at a time) from the list on the left and drop them on the button you want to assign on the right. (Using the left-hand mouse button). To remove a sequence from a button, double right-click the button.

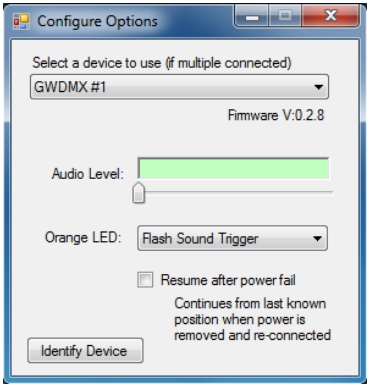


Once you are ready, you can connect the GWDMX to a spare USB socket, the software should automatically find the device and the "Transfer To GWDMX" button should be enabled. Click the transfer button and all of the sequences will be sent to the relevant button on the GWDMX.

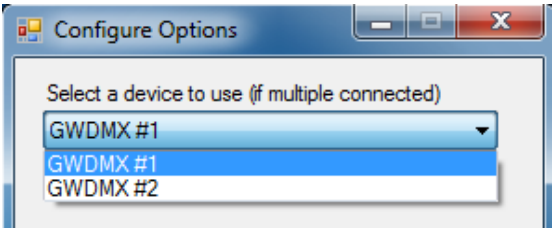
(If you modify any sequences, you will need to transfer again to update the GWDMX. You do not need to drag and drop the sequence onto the required button again, as it is already linked to the button).

Hardware Configuration

When you have a GWDMX connected you can press the "Configure Hardware" button and the Configuration Options window will appear, as below:



You can have multiple devices connected and select the one to program by selecting it from the drop-down box at the top. You can identify which device you are controlling by clicking the "Identify Device" button, this will make the currently selected GWDMX blue LED flash for a few seconds (rather than fade).



In hardware versions with firmware earlier than "0.2.8" you will need to set the audio trip sensitivity. (pre June 2011)

To adjust the audio sensitivity, the audio level will be shown, adjust the pointer below the level to set the sensitivity. The level should bounce above and below the pointer in order to trigger sequences.

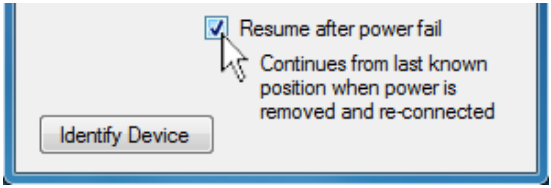
Hardware with firmware versions "0.2.8" onwards have an auto levelling trigger and this option is disabled.

As mentioned earlier, the Orange LED can be configured to show one of the following status':

- Flash on DMX
- Flash on button push
- Flash on audio trigger

These can be selected from the "Orange LED" drop-down box.

If the unit is being used for commercial use, you can enable the "Resume after power fail" option. By checking this option, the GWDMX will remember the last button pressed and when the power is re-connected, it will continue from the last scene played.

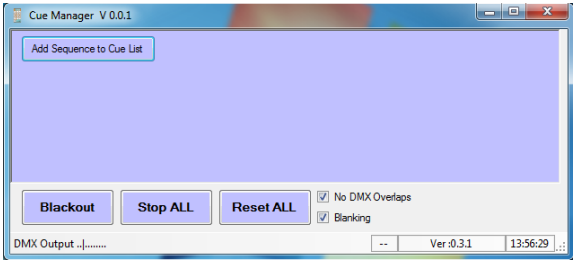


The GWDMX can be used connected to the PC or powered using a mains USB plug or a USB battery power pack. Once programmed, the sequences are run by the relevant button and stored in on-board flash memory.

Cue Manager (V2.2.0.18+)

As an alternative you can use the GWDMX as a remote keypad to trigger more than the ten sequences limited by hardware.

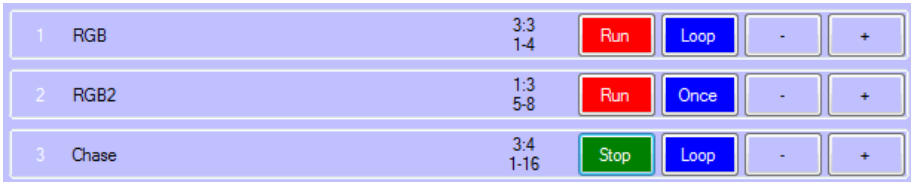
With the controller connected to an available USB port, run the GWDMX Configuration Program and click “Cue Manager” or use the “Cue Manager” desktop icon created on installation.



You can add your sequences to the cue list by clicking the “Add ..” button.

When you have added all you need, you can toggle each sequence (Run/Stop) by entering the two-digit number for that sequence (ie. Sequence 2, press “02”). The controller can also toggle the dedicated blackout by entering “00”.

Each sequence displays relevant information: Sequence Name, Current Scene, Total Scenes and the used DMX channels (taken from the first non-zero fader to the last non-zero fader).



Here you can see sequence 1 is called “RGB”, it is currently on scene 3 of 3 and controls DMX channels 1 to 4. Sequence 2 is called “RGB2”, is on scene 1 of 3 and controls DMX channels 5 to 8.

If I enabled the “No DMX Overlaps” option; this means that when a sequence is running (sequence 3 in green) when I toggle 1 or 2, sequence 3 will be stopped. This is because sequence 1 uses DMX channels 1 to 4 which are within the scope of sequence 3, using DMX channels 1 to 16. Similar is true for sequence 2 listed.

The “Blacking” option will allow sequences to keep running when stopped, only the DMX output for that sequence will be blanked.

Each sequence has four control buttons:-

1. The first changes the state of the sequence:
   red is stopped
   green is running
2. How the sequence is played:
   Loop - A continuous loop
   Reb’d - Rebound (ie. 1-2-3-4-3-2-1-2-3-4-3-2-1….)
   Once - The sequence will run once then stop
3. Previous scene (manual skip)
4. Next scene (manual skip)

To synchronise your sequences, there are global “Stop ALL” and “Reset ALL” buttons. These will do as they say on the tin, “Stop ALL” will stop all sequences from running and “Reset ALL” will reset all sequences to scene 1.

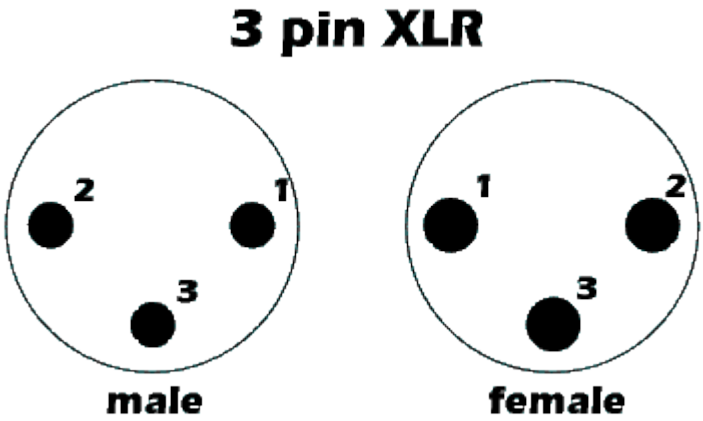
~~ end ~~

Specifications

USB Specification	2.0
USB Connection	USB-B
DMX Connection	XLRF-3
Dimensions	85 x 51 x 23 mm
Weight	300g
DMX Channels	192
Operating Temperature	10 to 50 °C
Power Supply	5V via USB-B
Stand-Alone Current	60mA*
Compatible Operating System	Windows XP/Vista/7

* Value may differ depending upon setup and hardware connected

DMX Pin out



1. Ground
2. Signal - (Negative/Cold)
3. Signal + (Positive/Hot)

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